

A new species of *Monostiolum* Dall, 1904 (Gastropoda: Buccinidae) from Brazil

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ABSTRACT. *Monostiolum simonei* is described from the Cabo Frio region of Rio de Janeiro State, Brazil. It is compared with the superficially similar *Dianthiphos bernardoi* (Costa & Gomes, 1998).

INTRODUCTION

Monostiolum Dall, 1904, is a genus of tropical marine gastropods occurring in the western Atlantic and eastern Pacific oceans. The western Atlantic taxa were reviewed by Watters (2009), who recognized six named and three undescribed species. Additional specimens of these three innominate taxa have not been found but a fourth undescribed species from Brazil is herein described. It closely resembles the sympatric *Dianthiphos bernardoi* (Costa & Gomes, 1998) and may be confused with it in collections.

Abbreviations

BMSM: Bailey-Matthews National Shell Museum, Sanibel, Florida, USA.

GTW: Collection G. Thomas Watters.

OSUM: Ohio State University Division of Mollusks, Columbus, Ohio, USA.

UF: Florida Museum of Natural History, Gainesville, Florida, USA.

SYSTEMATICS

Family **BUCCINIDAE** Rafinesque, 1815

Subfamily **PISANIINAE** Gray, 1857

Genus *Monostiolum* Dall, 1904

Type species: *Triton swifti* Tryon, 1881, by original designation, western Atlantic Ocean (= *Triton tessellatus* Reeve, 1844).

Monostiolum simonei sp. nov.

Fig. 1A-E, H

Type material. Holotype: 15.5 x 7.1 mm, OSUM 40162. Paratype 1: 14.5 x 6.1 mm, UF 491800, Brazil, Rio de Janeiro State, Cabo Frio, 1-3 m; paratype 2: 15.8 x 6.3 mm, BMSM 85949, Brazil, Rio de Janeiro State, off Arraial do Cabo, 200-220 m; paratype 3: 14.1 x 6.2 mm, OSUM 40163, Brazil, Rio de Janeiro State, off Arraial do Cabo, 200-220 m.

Type locality. Western Atlantic Ocean, Brazil, Rio de Janeiro State, off Cabo Frio city, 120-150 m.

Other material examined. GTW 13591a, Brazil, Rio de Janeiro State, off Arraial do Cabo, 200-220 m (1 specimen).

Habitat. Paratype UF 491800 was noted as collected in "1-3 m among rocks." However, all other specimens are from 120+ m and that depth record is questionable.

Distribution. Known only from the Cabo Frio region of Rio de Janeiro State, Brazil.

Description. (based on 5 adult specimens) Largest adult specimen seen, 15.8 mm in length (paratype 2); smallest specimen seen, 14.1 mm in length (paratype 3); holotype 15.5 mm length x 7.1 mm width. Shell thin for genus, fusiform; spire ca. 66% total length. Protoconch of 1.5 somewhat tabulate, minutely pitted, pale tan whorls. Teleoconch of 4.5 whorls, clearly demarcated from protoconch. Teleoconch sculpture of 26-30 flattened spiral cords, including siphonal canal; most cords of equal strength, occasionally with smaller intercalated threads, separated by spaces of approximately the same width as cords. Axial sculpture of narrow, low, rounded ribs, weak and irregular to obsolete on final whorl, especially the last ¼ whorl, much stronger on spire; 20-23 ribs on penultimate whorl, 18-22 on final whorl. Extremely fine 2° threads occur between axial ribs. Intersections of axial and spiral sculpture form low beads. Terminal varix narrow but pronounced. Aperture oval, elongate. Outer lip with ca. 10 very weak, slightly lirate denticles, strongest at siphonal and anal canals. Parietal lip adherent, with a small anal tooth and low siphonal rib. Siphonal canal short, open. Color yellow-tan, spiral cords slightly darker, occasionally with white flecks, with a faint, narrow white peripheral band. Aperture white. Operculum, radula, and anatomy unknown.

Remarks. With the exception of the wide-ranging *Monostiolum tessellatum* (Reeve, 1844), other western Atlantic species of the genus appear to have narrowly limited distributions. *Monostiolum simonei* is no exception, being known only from the Cabo Frio region. It is the most southern species known of the genus, occurring >4,200 km from its nearest congeners, *M. tessellatum* and *M. nocturnum* Watters, 2009, at Tobago. It seems highly likely that additional species will be found off the intervening coast although Massemin et al. (2009) did not record any members from French Guiana.

Comparison with other species. Although clearly a member of *Monostiolum* this species bears a close superficial resemblance to members of *Dianthiphos* Watters, 2009, particularly pale-colored specimens of *D. bernardoi* (Costa & Gomes, 1998) (Fig. 1G, I) and

Dianthiphos electrum Watters, 2009 (Fig. F). *Monostiolum simonei* and *D. bernardoi* may also be sympatric. It is likely that the two taxa are confused in collections. *Monostiolum simonei* (Fig. 1H) and *Monostiolum* in general (Fig. 1J) are easily separated by their pale, somewhat tabulate protoconch, which in *Dianthiphos* is purple and bulbous (Fig. 1I).

This species also is similar to *Dianthiphos electrum* Watters, 2009, from Colombia. It differs from *D. electrum* in having fewer axial ribs on the penultimate whorl (ca. 28) that continue onto the final whorl; in *D. simonei* the ribs become obsolete on the final whorl. The two species are separated by ca. 7,000 km of coastline.

Monostiolum simonei does not closely resemble any other known *Monostiolum*. The shell is thinner, with a more capacious aperture and less developed apertural teeth than that found in other species.

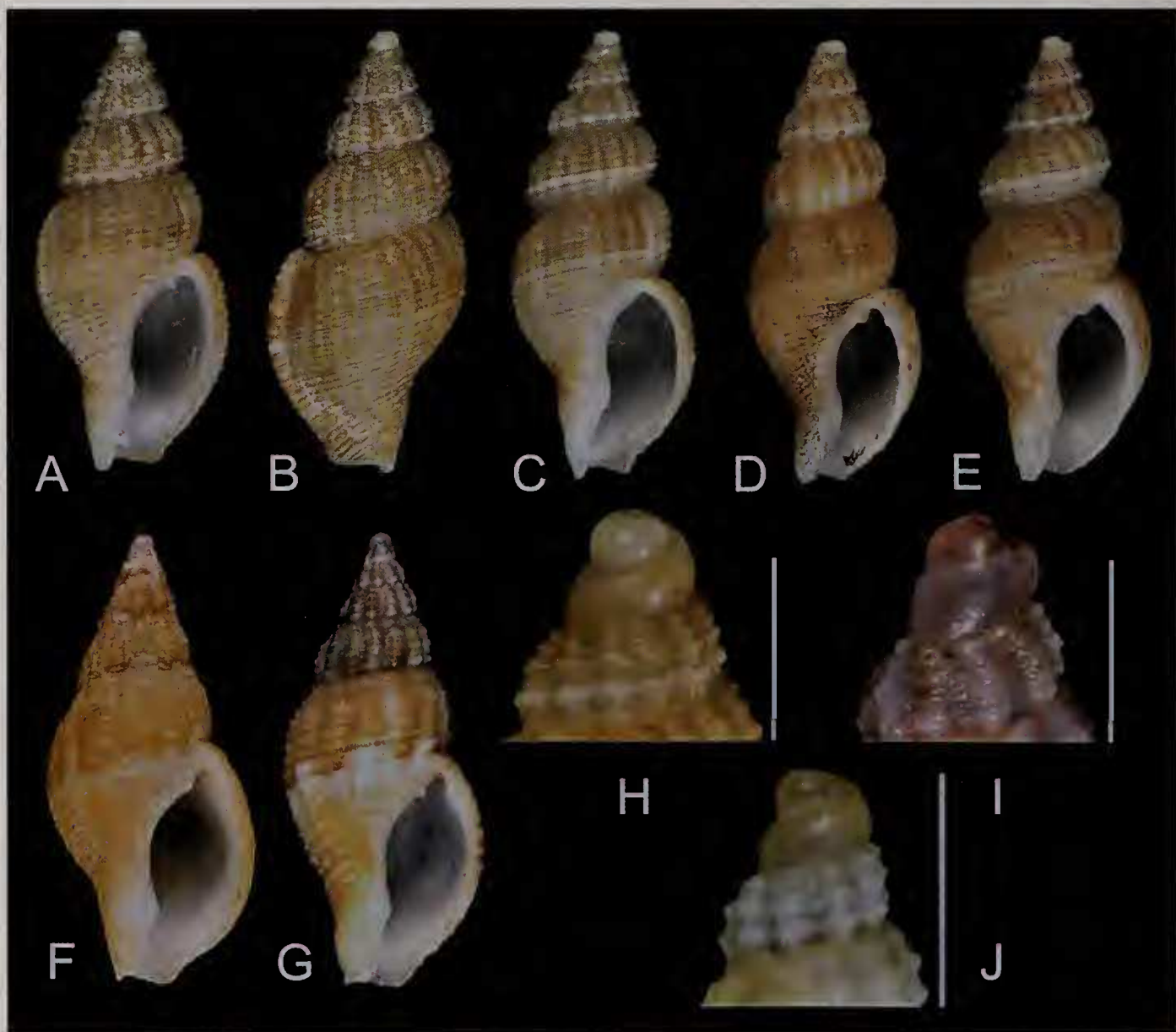


Figure 1

A-E, H. *Monostiolum simonei* sp. nov.

A-B. Holotype, OSUM 40162 (15.5 mm length); **C.** Paratype 3, OSUM 40163 (14.1 mm length); **D.** Paratype 2, BMSM 85949 (15.8 mm length); **E.** Paratype 1, UF 491800 (14.5 mm length).

F. *Dianthiphos electrum* Watters, 2009, holotype, UF 425834, 16.7 mm; **G.** *Dianthiphos bernardoi* (Costa & Gomes, 1998). GTW 9143c, Cabo Frio (14.8 mm length); **H.** Protoconch, *Monostiolum simonei* sp. nov. Paratype 3, OSUM 40163 (bar = 2 mm length); **I.** Protoconch, *Dianthiphos bernardoi* (Costa & Gomes, 1998). GTW 9143c, Cabo Frio (bar = 2 mm length); **J.** Protoconch, *Monostiolum auratum* Watters & Finlay, 1989. GTW 8617c, Tourmaline Reef, Puerto Rico (bar = 2 mm length).

Etymology. Named for Dr. Luiz Ricardo L. Simone, Museu de Zoologia da Universidade de São Paulo, in recognition of his invaluable studies on Brazilian molluscs.

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